U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

Date: June 22, 2009

Subject: Raritan Bay Slag Site
Old Bridge and Sayreville, Middlesex County, New Jersey

From: Andrew L. Confortini, OSC
U.S. EPA, Region II
Removal Action Branch

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POLREP NO. 2

II. BACKGROUND

Site No.:	A205
Contract No.	EP-W-04-055
Delivery Order No.:	073
Response Authority:	CERCLA
CERCLIS No.:	NYN000206276
NPL Status:	Non-NPL
Action Memo Status:	Verbal Authorization Granted: March 18, 2009
Start Date:	April 4, 2009
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA incident category: On-going release of heavy metals into adjacent soil, sand and water. This release has impacted, and continues to impact nearby beaches and shoreline and sediment within this portion of Raritan Bay. The affected areas are currently being utilized by local fisherman, sun bathers and boaters.

B. Site Description

The Site is located in the Laurence Harbor section of Old Bridge and in Sayreville along the Raritan Bay. Based upon available analytical results, the overall site spans approximately 1.3 miles of the waterfront area between Margaret's Creek and the area just beyond the western jetty at the Cheesequake Creek Inlet (Figure 1): The portion of the Site that is situated in Laurence Harbor includes Margaret's Creek and the Old Bridge Waterfront Park. Margaret's Creek is open space consisting of wetland and upland areas. The upland area is reported to be filled with debris containing slag and battery carcasses. The park is made up of walking paths, a playground area, several public beaches, and three jetties, not including the two jetties at the Cheesequake Creek Inlet. The park waterfront is protected by a seawall, which is partially constructed with pieces of slag. The western jetty at the Cheesequake Creek Inlet in Sayreville and the adjoining waterfront area west of the jetty, contains slag as well. This property is privately owned and the former location of a popular restaurant. The slag was placed at both locations approximately 40 years ago. The seawall, jetties, beach area east of the Cheesequake Creek Inlet, and the western jetty at the Cheesequake Creek Inlet are popular fishing areas. The beaches east of the Cheesequake Creek Inlet and west of the seawall appear to be the most popular for swimming.

On April 24, 2008, the United States Environmental Protection Agency (EPA), Removal Action Branch received a request from the New Jersey Department of Environmental Protection (NJDEP) to evaluate the Laurence Harbor Seawall for CERCLA removal action consideration. On November 3, 2008, DEP forwarded an amended request to include the northern jetty (hereafter referred to as the western jetty) at the Cheesequake Creek inlet in the overall scope. The site was renamed as Raritan Bay Slag (Site). Subsequently, the Site was expanded to include the Margaret's Creek property.

Elevated levels of lead, antimony, arsenic, and copper were identified by the NJDEP in the soil along the seawall in 2007. One area of concern identified during the sampling conducted by the NJDEP was at the edge of the beach near the western end of the seawall. Old Bridge Township placed a temporary "snow" fence in this area, posted "Keep-off" signs in the park along the split rail fence that borders the edge of the seawall, and notified the residents of Laurence Harbor.

EPA collected samples at the Site in September 2008 as part of an Integrated Assessment. The sampling included the collection of soil, sediment, water, biological, and waste samples along the seawall in Laurence Harbor, the western jetty at the Cheesequake Creek Inlet, the beaches situated near these two locations, and the developed portion of the park.

Analytical results generated by either EPA or NJDEP investigations indicate that significantly elevated levels of lead and other heavy metals are present in the soils, sediment, and surface water in and around both the seawall in Laurence Harbor and the western jetty at the Cheesequake Creek Inlet. Analytical results for surface soil samples collected near the seawall were as high as: 142,000 mg/kg for lead, 12,900 mg/kg for antimony, 3,350 mg/kg for arsenic, and 3,590 mg/kg for copper. Four surface soil samples collected on the western jetty at the Cheesequake Creek Inlet ranged in concentration from 54,800 mg/kg to 198,000 mg/kg. The maximum concentrations of antimony, arsenic, and copper detected on the western jetty at the Cheesequake Creek Inlet were 3,120 mg/kg, 2,470 mg/kg, and 4,630 mg/kg, respectively. Nine of 13 soil samples collected in and around the seawall and the western jetty at the Cheesequake Creek Inlet exceeded the Resource Conservation and Recovery Act Toxicity Characteristic Leaching Procedure limit for lead (5 mg/l). The TCLP results for the soil from the western jetty exceeded the limit by approximately 100 to 250 times.

Elevated levels of lead were also identified at several surface locations on the first beach between the western end of the seawall and the first jetty in Old Bridge Waterfront Park. The average lead concentration of the four highest detections at this location was 1,365 mg/l, with a maximum lead concentration of 1,630 mg/l. Three activity-based water samples collected from the beach area situated between the western end of the seawall and the first jetty had an average total lead concentration of 1,179 ug/l, with a maximum total lead concentration of 1,450 ug/l.

At the request of EPA, the New Jersey Department of Health and Senior Services, in cooperation with the Agency for Toxic Substances and Disease Registry, evaluated the analytical data generated from the samples collected at the Site. It was concluded that due to the elevated lead levels a Public Health Hazard exists at the seawall in Laurence Harbor, the beach between the western end of the seawall and the first jetty, and the western jetty at the Cheesequake Creek Inlet (including the waterfront area immediately west of the inlet).

V. RESPONSE INFORMATION

A. Situation

1. Current Situation

Based on the available data, a CERCLA removal action is warranted at the Site. The following immediate actions have been taken:

Reporting Period: May 12, 2009 through June 22, 2009:

Activities completed during this reporting period included completion of security fence installation along the Old Bridge Waterfront Park and Route 35 and the placement of appropriate warning signs. Work also included the consolidation of beach debris, removal of temporary snow fencing and split rail park fence and removal of wood debris from Margaret's Creek.

On June 3, 2009, EPA attended the monthly Old Bridge Environmental Commission meeting and provided a progress update. On June 11, 2009, EPA presented the results of investigations to date to the NY/NJ Bay Keepers Association in Keyport, NJ.

Reporting Period: March 9, 2009 through May 11, 2009:

Activities completed during this reporting period can be found in POLREP#1, dated May 11, 2009.

2. Removal Actions to Date

This is the first removal action being taken to prevent direct contact with contaminated sand, water and slag.

3. Enforcement

Enforcement actions are being conducted by the Office of Regional Counsel (ORC) to identify responsible parties (RP) and evaluate their liability.

B. Planned Removal Actions

The scope of removal activities involved installation of permanent fencing and warning

signs.

C. **Key Issues**

Key issues at this time involve developing a comprehensive public outreach program, scheduling a public meeting, coordination with state and local government entities and local business owners. EPA is currently working with Old Bridge officials to develop surveillance program to deter fence vandalism.

V. COST INFORMATION AS OF June 22, 2009

	Removal
ERRS	$ 189,000*
RST	$ 1,000
EPA	$ 5,000
TOTAL	$ 189,000*
PROJECT CEILING	$ 325,000*
PROJECT BALANCE	$ 127,000*

*Indicates Mitigation Ceiling.

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

VI. DISPOSITION OF WASTE

Not applicable at this time.